64TH CONFERENCE ON EXCEPTIONAL CHILDREN

WORKING TOGETHER
TO ACHIEVE STUDENT SUCCESS

Implementing Video Modeling Interventions in School Settings

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Autism Spectrum Disorders
(a very brief overview)

- ASDs are a group of developmental disabilities that cause substantial social, communication and behavioral challenges
- CDC reports that 1 in 68 children have a diagnosis of ASD
- Rate continues to rise

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The Challenge

- As educators, we must identify and implement effective teaching strategies for students with ASD
- Learning new behaviors relies heavily on the ability to observe and imitate the actions of others
  - Imitation deficits are a distinctive feature in those with ASD

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Common Barriers to Learning

- Difficulty with:
  - Attention
  - Motivation
  - Interacting with others
  - Retention and reproduction of skills
  - Generalization
- Need for extensive support, repetition, 1:1 teaching
- Prompt dependency

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Common Strengths

- Visual learners
- Benefit from predictability, repetition and routine
- Attention to detail
- Learn better with limited distractions
- Attentive to and motivated by technology

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Overcoming Obstacles and Building upon Strengths

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Video Modeling Interventions

- Video Modeling (VM) involves demonstrating a desired behavior, task, or skill to an individual through a recorded video format before providing the individual with an opportunity to imitate the behavior (Bellini & Akullian, 2007)

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Video Modeling Interventions

- Evidence-based practice
- Can be used:
  - With a wide age range
  - 1:1 or group instruction
  - In a variety of environments
  - With various target behaviors

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Supporting Research

- Video modeling has demonstrated effectiveness in promoting rapid acquisition, maintenance, and generalization of imitative behaviors to individuals with ASD (Bellini & McConnell, 2010)

Supporting Research

- Other skills successfully taught using VM techniques:
  - Verbal comments, intonation, gestures, and facial expressions
  - Decreases in inappropriate behaviors such as tantrums and physical aggression
  - Daily living and safety skills
  - Play behaviors
  - Social skills
  - Academics

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Types of Video Modeling

- Premade Videos
  - Commercially available
    - http://www.modelmekids.com/
    - http://www.watchmelearn.com/
    - http://www.teach2talk.com/
  - iPad apps
    - Free apps: Social Skills Sampler, Social Skill Builder Lite
  - YouTube
- Make your own
  - You will learn how to later in this presentation! ☺

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Types of Models

- Other as model
  - adult vs. peer, familiar person vs. unfamiliar
- Self as model
  - Typically requires prompting and editing
- Point of view
- Puppets

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Benefits to VM

- Requires less effort and resources than in vivo modeling
- Eliminates some of the social interaction aspects to teaching
- Decreases irrelevant stimuli in the teaching environment and facilitates attention to key components of targeted skill
- Permanent product
- Skill is modeled in same exact manner each time

Case Studies and Examples

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My Research

- Focus: teaching basic imitation skills to children with ASD and DD
- Three participants 3-5 years old with minimal to no basic imitation skills
- Sessions implemented at public preschool
- Five week intervention with a 1 and 3 week follow up to test for maintenance and generalization
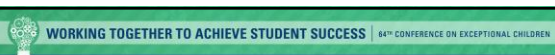
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The Basics

- Initial assessment to identify target behaviors
- Sessions conducted at a desk outside classroom, 2-3x a week for 5-10 minutes
- Data collected on performance
- Simple verbal feedback provided (no prompting or planned consequence/reinforcement)
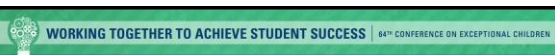
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Baseline and Intervention Sessions

- During baseline, target behaviors were modeled in vivo
- During intervention, target behaviors were modeled using VM
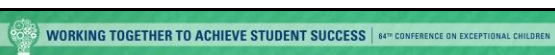
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Video Creation

- Videos filmed of researcher performing each target behavior at a slow pace
- Compiled using Windows Movie Maker
- Video clips were 5-10 seconds
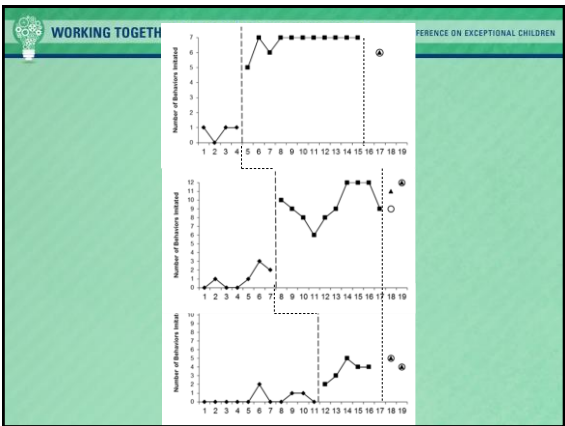- Blank slide presented in between target behaviors

Video Example

Follow Up

- Probes conducted in classroom by teacher and researcher
- Student was instructed "do this" and teacher/researcher modeled target behaviors in vivo

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Another example

- Second grade student in separate setting AU classroom
- Often distracted, didn't respond to simple instructions presented at the table and prompt dependent
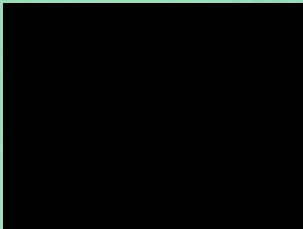- Observed to attend to videos presented on iPad, computer and Smartboard

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VM to teach "matching"

- Videos created using iPhone camera and Windows Movie Maker
- VM displayed on iPad twice
- Student was then presented with identical stimuli used in video and instructed to match it

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VM for Matching

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Intervention Session 3

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Results

- After three presentations of the VM student was successfully matching shapes
- Removed video model, student successfully matched all shapes
- Generalized "matching" to stimuli not directly taught using the VM

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Fading VM and Generalization

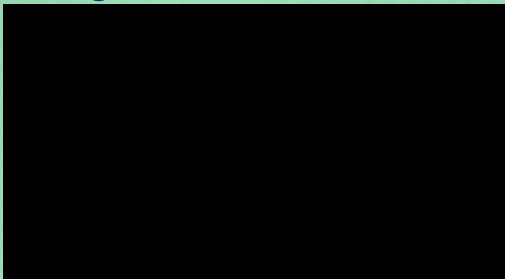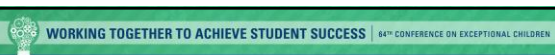WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS | 64TH CONFERENCE ON EXCEPTIONAL CHILDREN

Other Skills Taught

- Drawing shapes and writing letters
- Crossing the road
- Saying "Hello"
- Raising hand
- Self-calming techniques
- Personal space

Making and Implementing Video Modeling Interventions
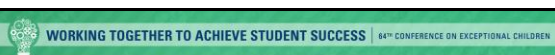
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First steps

- Identify target behavior
- Begin taking baseline data
- Start to plan!
- Consider:
  – Type of model
  – Type of device (filming and showing)
  – Possible interfering behaviors

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Video Creation

- Recruit models and develop script (if applicable)
- Focus the camera on critical aspects of the skill being taught
  - Eliminate irrelevant stimuli
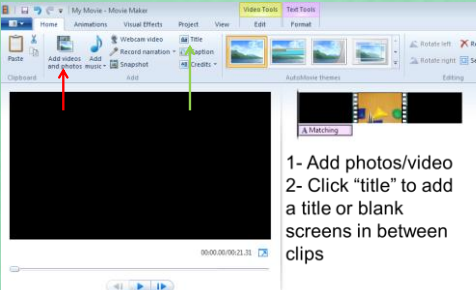- Model behavior at an appropriate (or sometimes slower) pace
- Upload to computer
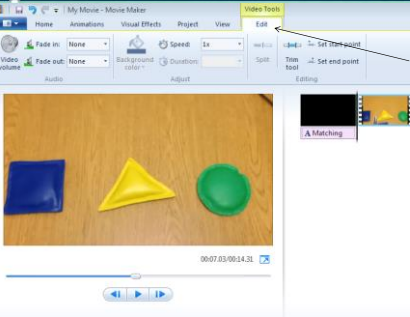

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Editing Using Movie Maker

1- Add photos/video
2- Click "title" to add a title or blank screens in between clips

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Under the Edit tab:
The "trim tool" allows you to cut out unwanted footage or prompts

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Saving

- Click the blue menu button (left of the "Home" tab)
- "Save project" if you aren't finished or may want to edit it again
- "Save movie" for your finished version!

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Implementation

- Decide when and where video will be shown
- Allow multiple viewings
- Provide opportunity to imitate the behavior immediately after viewing(s)
  – Prompts or reinforcement may be needed
- Collect data on student responding
- Fade the video once student is successful at performing the skill

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References and Resources

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Resources:
- http://www.autisminternetmodules.org/ (free online modules- one specifically addresses VM)
- http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/VideoModeling_EvidenceBase_0.pdf

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Q&A